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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,399	09/18/2003	Michael S. Leung	P0298US-7	8955
7590	11/18/2004		EXAMINER	
Jaye G. Heybl KOPPEL, JACOBS, PATRICK & HEYBL Suite 107 555 St. Charles Drive Thousand Oaks, CA 91360			LE, THAO X	
			ART UNIT	PAPER NUMBER
			2814	
DATE MAILED: 11/18/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/666,399	Applicant(s) LEUNG ET AL.	
	Examiner Thao X Le	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 and 20-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-19 and 33-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/07/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-12 and 20-32, drawn to a semiconductor device, classified in class 257, subclass 79+, 99, and 678.
 - II. Claims 13-19 and 33-37, drawn to a method of making a semiconductor device, classified in class 438, subclass 22, 24, 28, 46-47, 106, and 121.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make other and materially different product. For instant the semiconductor partially embedded in cured coating material is not required in the device claim.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with the Applicant's Attorney, Mr. Jaye Heybl on 11/05/04 a provisional election was made without traverse to prosecute the invention of Group II, claims 13-19 and 33-37. Affirmation of this election must be made by applicant in replying to

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this Office action. Claims 1-12 and 20-32 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 13-17, 33-34, 36-37 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6139304 to Centofante.

Regarding claims 13, 33, Centofante discloses a method for coating a plurality of semiconductor device, comprising: providing a mold 100, fig. 2-1, column 5 line 55, with a formation cavity 24, fig. 2-1, mounting a plurality of semiconductor devices 32, fig. 2-11, column 6 line 6, within said mold formation cavity 24, fig. 2-11; injecting or otherwise introducing curable coating material 34, column 6 line 40, into said mold to fill said mold formation cavity and at least partially cover said semiconductor devices 32, fig. 2-4a, and curing,

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column 6 line 42 or otherwise treating said coating material so that said semiconductor devices 32 are at least partially embedded in said cured coating material 34, fig. 2-4a.

Regarding claims 14-15, 34 Centofante discloses the method of claim 13, further comprising removing said cured or treated coating material with said embedded semiconductor devices 32 from said formation cavity, column 10 lines 20-25, further comprising separating said embedded semiconductor devices 32 so that each is at least partially covered by a layer of said cured or treated coating material 34.

Regarding claim 16, 36 Centofante discloses the method wherein said formation cavity at least partially defined by parallel upper and lower surfaces 10/40, fig. 1, said semiconductor devices 32 arranged on one or both of said upper and lower surfaces, fig. 2-1.

Regarding claim 17, 37 Centofante discloses the method claim wherein said curing otherwise treating said semiconductor material comprises one of the methods from the group comprising heat curing, optical curing or room temperature curing, column 6 line 42.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 18-19, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6139304 to Centofante in view of US 6252254 to Soules et al.

Regarding claim 18-19, Centofante discloses the method wherein the encapsulated layer 34 of cured or otherwise treated coating material conforms to the shape of said semiconductor device, column 9 line 35-45.

But Centofante does not disclose the method wherein the semiconductor devices 32 are separated by dicing or scribe and break.

However, such separation of semiconductor device after packaging is typical in the art, see Fjelstad (6583444), fig. 3E-3I.

Regarding claim 35, Centofante does not disclose the method wherein the matrix material contains light conversion particles.

However, Soules reference discloses the method wherein the LED, fig. 2, comprises a matrix material 15, column 6 line 17, contains light conversion particles. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the encapsulating material contains light conversion particles teaching of Soules with Centofante's capsulation material 34(reference), because it would have created a specific LED characteristics such as color and color rendering index, as taught by Soules, column 2 line 27-32.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X Le whose telephone number is (571) 272-1708. The examiner can normally be reached on M-F from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M Fahmy can be reached on (571) 272 -1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thao X. Le
16 Nov. 2004

LONG PHAM
PRIMARY EXAMINER